

Inkjet's Disruptive Influence

With cut-sheet inkjet presses hitting the market, is this the beginning of a decline in demand for sheetfed offset and digital toner?

By Erik Cagle



Some say replacing aging toner devices with inkjet will soon become a trend. Case in point: The Houston Independent School District's in-plant just replaced four Xerox Nuveras with a cut-sheet Océ VarioPrint i300 inkjet press. Here, employees stand with their new inkjet press. From left: James Givens, Lin Tan, Jeremy Tsao, Angela Walker and Chuck Werninger.

CONSIDERING THAT many cut-sheet inkjet machines have been in action for only a few months, the thought of them ultimately stealing away volume from their sheetfed offset and digital toner neighbors smacks of premature speculation. That would be akin to a VP being worried about losing her job to a college intern. Sure, the intern will soon be an Ivy League graduate, with honors, but that hardly means he/she is ready to conquer the world. Right?

RIGHT?

Fortunately for iron, it cannot experience paranoia like the carbon-based life forms who operate the machines. And while cut-sheet inkjet presses are not currently positioned to put sheetfed offset or digital toner-based, cut-sheet machines on the sidelines *en masse*, there are certain classes of printing that have already witnessed a migration of work. And some of the industry's leading pundits are confident that this is only the beginning. So, is it the beginning of a marked decline in demand for sheetfed offset and digital toner?

Printers use a number of measuring sticks as they ponder the possibility of moving away from their in-

house technology, notes Dave Erlandson, VP and GM of Caslon & Co., which manages PODi. Image quality and substrate versatility are the top factors, and the ability to run a job cheaper with less waste also weighs heavily into the decision.

The release of the Canon Océ VarioPrint i300 cut-sheet inkjet press fired a crisp and concise salvo, with the aim of taking away direct mail, book and transactional work. This is generally considered the low-to medium-quality spectrum, according to Erlandson, with the elimination of preprinted shells and lower cost of ownership being a rally cry for the pro-inkjet supporters.

"Devices like the VarioPrint i300 are going to have a pretty big impact on monochrome toner devices," he notes. "For example, in a transactional situation — where you were previously producing statements via preprinted shells and a mono laser — one VarioPrint i300 can replace two or three of those devices. The same holds true if you're doing direct mail. So, you're taking away some volume from offset via preprinted shells and some volume from monochrome digital. Inkjet mono is cheaper than toner mono — cheap enough to make it worthwhile to acquire a color [inkjet] device."

Finding the Right Quality, Price Points

For now, however, Erlandson believes that cut-sheet inkjet presses have not graduated to the point where they can adequately (read: economically) address the high-end quality market. He sees cut-sheet inkjet overtaking digital color toner devices in the mid-range space, but the onus is on the manufacturers of high-speed, high-quality cut-sheet inkjet machines to make the economics work. He notes that the current B2 inkjet presses with offset image quality — Komori Impremia IS29, Konica Minolta KM-1 and Fujifilm J Press 720S — all have capital costs of roughly \$1.5 million and require high-volume production to make a good return. The volume level required, he adds, exceeds that of most shops.

“I’m sure there’s a right mix of work that can make it feasible,” he says. “But, for most people, it’s still more cost-effective to run high-quality digital jobs on toner printers [rather than cut-sheet inkjet].”

Inkjet Replaces 20 Machines

It didn’t take very long for Access Direct Systems to decommission its toner-based digital devices and replace them with inkjet. After installing an Océ ColorStream 3900 color, continuous-feed inkjet press in December of 2013, the direct mail and transactional statement specialist from Farmingdale, N.Y., decided to add an Océ VarioPrint i300 cut-sheet inkjet system.

The rationale was rather simple, according to John DiNozzi, executive VP of Access Direct Systems. The incumbent digital toner cut-sheet environment was too expensive and too slow, and the Océ VarioPrint i300 is delivering higher quality and quicker turnarounds.

Not only has Access Direct Systems eliminated the need for preprinted shells, it has eliminated the need for toner devices. Twenty machines were decommissioned, to be exact, of which five cut-sheet toner models were given their walking papers. Scheduling has become easier: All job runs of at least 100,000 are run on the ColorStream 3900, with the VarioPrint i300 handling the lower counts. In fact, the VarioPrint i300 was able to pilfer some of the tipping point volumes from the ColorStream 3900.

“It’s provided a lot of savings in labor, power and real estate,” DiNozzi observes. “Once the VarioPrint i300 was operational, we moved all of our cut-sheet volume over in a week. The transition was extremely easy; and the uptime and speeds are incredible.”

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— MARCO BOER, IT STRATEGIES

Konica Minolta Business Solutions made a splash at drupa with two initial sales of its AccurioJet KM-1 cut-sheet UV inkjet press to Rochester, N.Y.-based Cohber Press and PostcardMania in Clearwater, Fla. Based on the same inkjet press platform, Komori America announced Richmond, Va.-based Worth Higgins as the first U.S. beta user of its 23x29” Komori Impremia IS29 cut-sheet UV inkjet press.

Still, Erlandson says, manufacturers of offset printing presses are not sitting on their hands. Erlandson points out that companies are constantly driving down the makeready times required to run an offset press. However, he believes many printers are delaying decisions regarding the purchase of digital toner or offset presses because they are continuing to monitor the future direction of production inkjet technology.

Replacement of Aging Toner Devices

Equipment turnover will go a long way toward dictating how quickly, or slowly, technology turns in favor of increased cut-sheet inkjet volume. IT Strategies VP Marco Boer notes that as the monochrome production toner machines continue to age out, the cheaper running cost of cut-sheet inkjet — which carries the added benefit of color — will enable it to win the battle of attrition.

“The reason why the timing is good now is because a lot of these old mono toner machines like DocuTechs and Nuveras are aging to the point where they’re reaching catastrophic failure,” he says. “And they need to be replaced. So, do I replace my four Nuveras with more of the same, or do I replace them with one inkjet device? You’re going to see a lot of consolidation at multiple machine sites.”

A great example of this theory in action is the Houston Independent School District’s in-plant, which just installed an Océ VarioPrint i300 to replace four Xerox Nuveras that were at the end of their leases. Chuck Werninger, senior manager of Administrative

Services, says his shop made the move to cut-sheet inkjet because the technology is “a much faster, more efficient, more reliable and significantly more cost-effective print production process than competing xerographic imaging technology”

With the continued improvement of cut-sheet inkjet printing quality — hastened by developments such as Canon’s ColorGrip technology option for the VarioPrint i300 that expands media choices through an in-line paper conditioning step, Boer notes — graphics output quality inkjet presses could erode digital toner-based color press volumes.

The movement toward cut-sheet inkjet at CompuMail, which uses a Delphax elan 500 press powered by Memjet technology, could see a 100% conversion away from toner within the next five years.



“These inkjets are often less expensive in running costs than a digital color press,” he says. “We’re in year one ... as we head into year five of the install base, that impact is going to be more significant. It allows the industry to scale up manufacturing volumes of the inkjet machines.”

And with the Xerox Brenva HD cut-sheet inkjet press arriving this fall to add another option in the transactional, book and direct mail spaces, the excitement meter continues to spike for inkjet. With a \$649,000 starting list price, it sits below the gap between high-end toner and low-end inkjet presses.

“Long-term, as the level of image quality improves

on inkjets, where it reaches digital toner color press quality, companies — particularly high-production volume sites — will have to ask themselves which technology they ultimately want to buy,” Boer says. “Digital color presses have a home but, as time goes forward — and you can imagine inkjet proofer-like output quality of these high volume production, cut-sheet inkjets — it begs the question, ‘Do I really care which technology I buy, or do I buy whatever’s the most cost-effective?’ The end-user doesn’t care, especially if the quality is equal or better.”

Inkjet Saves Company 35%

One company that has witnessed a migration path from digital toner to cut-sheet inkjet is CompuMail, a print-and-mail provider in Concord, Calif., which serves the account collections industry. The firm boasts over 200 nationwide customers, aided by roughly 20,000 letter templates that it can marry with collections software.

According to Andrew Morrell, plant manager, CompuMail mails approximately 85 million letters per year. The company offers other capabilities including data storage and archiving, address cleansing and national change of address (NCOA) services.

In January of 2014, the firm became a beta tester for the Delphax elan 500 cut-sheet inkjet press, and after the beta deal was extended from three to six months, the company hammered out a deal to obtain the machine.

Primarily a Konica Minolta shop, CompuMail still uses four KMBS color toner printers and six larger black-and-white models. In 2015, the company churned out 20 million images on the new press, and Morrell estimates the company reaped a savings of 35% in using the elan 500.

“One of the biggest paradigm shifts for us was going from toner-based printing to inkjet,” Morrell says. “Especially how the ink reacts with the paper. [The elan 500] is capable of a high-end dpi if you use treated paper. We only have 3-5% coverage on the pages, with credit card logos and maybe a highlight color here and there.”

Capacity has been the biggest perk for CompuMail; Morrell estimates the press runs eight to nine times faster than the mono toner devices. And while the collections industry is lagging behind marketing mailers in its use of color, they’re beginning to come around. In a space where debt buyers are purchasing delinquent accounts for pennies on the dollar, the desire is to spend as little as possible on the mailings. But some clients are conducting side-by-side tests and are finding that color does generate a better response rate.

Moving forward, Morrell expects the inkjet machine(s) will shoulder more of the workload; the

elan 500 handles 60% of the color volume and 15% of the overall take. The toner devices are paid in full — Morrell won't have to mail a notice to his own company — but in about three years, he sees the company needing to update the gear.

"They're seven years old, paid for and have been tanks for us," he says. "But, in a few years, we should really be looking at inkjet because of the cost of production. I can see us literally transitioning our entire shop to inkjet in the next three to five years."

High-End Customer Expectations

Another company that was able to make the economics of high-speed, high-quality cut-sheet inkjet output work is Classic Color of Broadview, Ill., which specializes in high-end art books, auction materials and automotive advertising, just to name a few. It's a niche customer base the printer addresses, and it's one where high quality is not a plus but a baseline expectation.

The company rang in the new year by installing a four-color, 29" Fujifilm J Press 720S cut-sheet inkjet press. According to Jeff Hernandez, VP of technology at Classic Color, the press is a differentiator in the eyes of customers. It's an improvement over the

previous liquid toner digital machine the shop used, as it provides more consistent color and can handle colors such as grays, greens and purples, the flavors that tend to trip up toner-based printers, he says. Bottom line: it also means Classic Color doesn't have to reel in the designers who participate in projects.

By the same token, the J Press 720S out-performs offset because it doesn't require makereadies. Papers also don't need to be qualified; it can handle standard offset stocks. And since it uses water-based inks, it doesn't leave behind a waxy residue, which can be a challenge with toner-based output, he adds.

There's no streaking; the consistency is there on crossovers and from front to back of sheets. Hernandez notes that his shop can reprint a job a month later and the machine snaps right back to color.

But perhaps the one element that truly wins the day for Classic Color is quality. "People come in to see the machine and they marvel at it. It's offset quality without the makeready," Hernandez remarks. "We were able to ramp up in two shifts. The J Press puts a slight coating on the sheet that allows the inkjet heads to print extremely sharp. It's beautiful reproduction."
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